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**ON PETROCARIBE**  
**Petropolitics, Energopower, and Post-Neoliberal Development**  
**in the Caribbean Energy Region**

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**ABSTRACT**

This article examines PetroCaribe; a regional oil trading bloc spearheaded by Venezuela and Cuba. PetroCaribe has been an attempt at establishing an anti-imperial energy region in the Caribbean, enabling post-neoliberal development. We argue that two complementary modalities of power—petropolitics and energopower—have operated through PetroCaribe as a territorial-infrastructure energy region. Petropolitics frames PetroCaribe as a means for geopolitical manoeuvring around the supply of oil, enhancing the regional influence of Venezuela while empowering the Caribbean island-nations vis-à-vis oil exporting states. Energopower defines energy not as a geostrategic commodity but as a relation that binds places together, shaping political possibility, identity, and social relations. As an exercise of energopower, PetroCaribe has been motivated by visions of post-neoliberal development and anti-imperialism, seeking to reconfigure historically-entrenched power relations within the neoliberal petropolitical paradigm. In these terms, the article traces Venezuela's long and ambivalent relationship with oil, Cuba's efforts to secure oil for its socialist revolution, and the development of the Greater Caribbean as an energy region. It examines how PetroCaribe has been operationalized through oil and medical infrastructure. Even as PetroCaribe and Venezuela's Bolivarian Revolution are in decline, the trade bloc prompts us to conceptualize energy and oil as generative of subjects and space.

**Keywords:** oil; post-neoliberal development; energopower; Venezuela; Cuba; Caribbean

**INTRODUCTION**

In June 2005, fourteen Caribbean heads of state launched PetroCaribe.<sup>1</sup> Venezuela—an oil rich nation in an otherwise oil poor region—offered member-states deliveries of oil on conditions

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<sup>1</sup> The founding members were Antigua and Barbuda, Bahamas, Belize, Cuba, Dominica, the Dominican Republic, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines,

reflecting what Raúl Castro, Cuba's then vice president, described as a deep 'spirit of solidarity' (Castro Ruz, 2007). Historically, the island-states of the Greater Caribbean have depended on oil imports to sustain their economic and social development while suffering from a low purchasing power on the world market (Shirley and Kammen, 2013). Backed by Venezuela's national oil industry, PetroCaribe would allow them to rectify their energy vulnerability and instead benefit from equal exchange between partners (PetroCaribe, 2005). The largest beneficiary of the agreement, Cuba in part exchanged medical services for Venezuelan oil. PetroCaribe has been an expression of the 'pink tide' in Latin America, initially described by some as a 're-invention of socialism' and the end of 'the long neo-liberal night' following the election of a series of left-wing governments in the region (Escobar, 2010: 2).

By June of 2018, Venezuela announced it would indefinitely suspend its oil deliveries to over half the PetroCaribe members, now counting nineteen (*Antigua Observer*, 2018). The decision had been on the horizon for some time. After Hugo Chávez's death in 2013, Venezuela spiralled into political and economic crisis. Violent protests in 2013, 2014, and 2017 made it increasingly difficult for President Nicolás Maduro to navigate both foreign and domestic policy objectives while facing domestic opposition, a resurgent regional right, and the Trump administration in the United States. Above all, a dramatic decline in oil revenue, with prices falling from 106 US dollars per barrel in 2014 to around 41 dollars per barrel in 2016 (OPEC Basket, 2018), exacerbated longer-standing trends in the Venezuelan oil industry. Following an overturned coup d'état in 2002, the Chávez government replaced key managers with loyalists in the national oil company, PDVSA, and the industry has since suffered from inefficacious management and a lack of investment in infrastructure. With virtually no other source of revenue, the Maduro administration has had to scale back much of its contributions to PetroCaribe and other foreign policy ventures.

From the outset, PetroCaribe aimed to transform a structural situation of energy scarcity into a consciously-constructed collective subjectivity and political project. Venezuelan and Cuban leaders, in particular, sought to recode this shared situation, fashioning a regional identity defined by complementarity and cooperation. The alliance has been projected with a post-neoliberal vision of development with solidarity (Muhr, 2017; Harrison and Popke, 2018a), resonating with Hugo Chávez's call to construct a 'Socialism for the Twenty-First Century' in Venezuela. Ideologically, it has also gained clout from Cuba's sustained history of

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Suriname, and Venezuela. Haiti and Nicaragua joined in 2007, Honduras in 2008, Guatemala in 2012, and El Salvador in 2014. While signatories, Bahamas, Guatemala, and Saint Lucia have not made use of the treaty.

socialist internationalism (Gleijeses, 2013). Amid a general consolidation of south-south cooperation in the past decade (Sidaway, 2012; Mawdsley, 2017), Venezuela and Cuba have consequently stood out among southern ‘donors’, as they have framed their international ambitions in anti-imperialist terms. Even so, PetroCaribe has blended these loftier ambitions with a high degree of economic and geopolitical pragmatism, as the alliance has been marked more by *realpolitik* and heterodoxy than a commitment to socialism.

This article examines PetroCaribe as an attempt at establishing a territorial-infrastructural space—an energy region—that aimed to reconfigure asymmetrical power relations to facilitate and catalyse social change in the Caribbean basin. We argue that two complementary modalities of power—petropolitics and energopolitics—have operated through PetroCaribe as a territorial-infrastructural space. As petropolitics, the alliance can be seen as an outcome of geopolitical manoeuvring around the supply of oil (Yergin, 2012). Energy, then, is understood as a commodity to be ‘secured’ and a resource that provides international leverage. Drawing on recent work on energy in geography and anthropology, however, we also build on a notion of energopower (Boyer, 2011; 2014), which sees energy not primarily as a commercial, strategic, or public good, but as a relation that binds places together, shaping political possibility and identity (cf. Massey, 2012). In energopolitical terms, energy is a materiality through which subjects at multiple scales access and exercise modes of collective life. In the following, we first conceptualize energy as a territorially-embedded social relation based on the petropolitical and energopolitical perspectives. We then move to a detailed discussion of PetroCaribe in these terms, tracing Venezuela’s long and ambivalent relationship with oil, Cuba’s efforts to power its socialist revolution, and the historical development of the Greater Caribbean as an energy region. The third section examines how PetroCaribe has been operationalized as a territorial-infrastructural space, focusing both on petroleum and medical infrastructure. We conclude with a series of reflections on PetroCaribe’s increasingly fractured attempts to produce a post-neoliberal energy region.

### PETROPOLITICS, ENERGOPOWER, AND THE TERRITORIALITY OF ENERGY

The conceptual ground of the petropolitical is well explored, and through Venezuela’s influence, PetroCaribe can be understood as an important case of it. Venezuelan governments have long used the country’s oil wealth to increase their influence in the Caribbean. PetroCaribe has been an extension of this history, as the Chávez administration used Venezuela’s oil to counter the political and economic interventionism of the United States in

the region. The geostrategic importance of the alliance was seen throughout 2017 and 2018 when Venezuela exerted its influence over small island-states in multilateral forums; for example, in the Organization of American States (OAS) where it faced off with dominant powers in North America and the Southern Cone. This perspective on PetroCaribe reflects an understanding of energy and social power that places states at the core of analysis and posits that, since the First World War, their pursuit of reliable access to oil has shaped the world globally and locally through geopolitical strategizing, war, and empire (Yergin, 2012). Petropolitics thus also defines a struggle between states counterposed as producers and consumers along the commodity chain.

Studies of petropolitics further identify how the access to and scarcity of oil have shaped—or even determined—social relations within states, including labour markets and mass-democracy, with deleterious effects on national social and political development (Karl, 1997; Mitchell, 2011; Ross, 2013). Here, the ‘petrostate’ labels a dynamic as much as a type of state where oil wealth often stands in inverse relation to internationally-recognized human development indicators (Karl, 1997; Ross, 2013). In Fernando Coronil’s (1997) account, the entanglement of political power with hydrocarbons made the Venezuelan state a key player in the daily lives and imaginaries of its citizens. By the mid-twentieth century, oil and the state had become synonymous, and the former was seen as endowed with ‘magical’ powers to pursue progress (Coronil, 1997: 3, 68). This developmentalist drama, combining a myth of modernity with the vast profits made from petroleum exports, remained unfinished as Venezuela crossed from dictatorship to democracy in the twentieth century, and from neoliberalism to Bolivarian socialism in the twenty-first. The result is a powerful historical assemblage that has positioned Venezuela in a ‘global structure of production and distribution’ as a state dependent on exports of crude oil (Coronil, 1997: 391). This is in part why Watts (2004: 53) warns against the ahistorical ‘commodity determinism’ that lurks behind the so-called ‘resource curse’ thesis of the petrostate. Political and economic dynamics must instead be seen as the result of nested and contested power relations situated in thick historical context, contingent on the global and local circuits of power, money, and violence through which resource extraction and export occur.

In Latin America and the Caribbean, petropolitics evokes narratives and affects associating electrification, automobility, and the ‘quality of life’ with socio-economic models and cultural ideals originating in the mid-twentieth century North Atlantic (Escobar, 2011; Cederlöf, 2015; Riofrancos, 2017). Latin America’s post-neoliberal turn was partially a reaction to the neoliberalization of these models in the 1980s and 1990s, including cuts in

public expenditure, a deregulation of markets, and the privatization of public utilities (Yates and Bakker, 2014). Throughout, discourses of ‘energy security’ have served an important ideological function in legitimizing government action within the dominant petropolitical paradigm. Bridge (2015: 333, original emphasis) shows how energy security emerged as a key trope in government policy with the OPEC oil embargoes to designate how ‘the *conditions of social life*’ were at stake in relation to oil access, even as it sought to preserve the status quo of these conditions. PetroCaribe, meanwhile, suggests that the asymmetrical power relations within which claims of energy security historically have been voiced have prevented the development of the Caribbean. Energy security through PetroCaribe aimed to break that status quo to open up for alternative development pathways based on a shared historical experience. The vision of development underpinning petropolitics, then, expresses a historically-contingent relation between situated social interests and the distribution of energy. As a result, petropolitics always entails the energopolitical production of situated subjectivities.

Here, energopolitics highlights how the ‘conditions of life’ are intertwined ‘with particular infrastructures, magnitudes, and habits of using electricity and fuel’ (Boyer, 2014: 323). Mitchell (2011) has convincingly demonstrated how the Keynesian socio-economic model that characterized post-war Europe was indebted to a global network of petroleum infrastructures and imperial control over oil reserves in the Middle East. Huber (2013) similarly shows how the energy-potency and materiality of petrochemicals interplayed with the development of ‘entrepreneurial life’ in the United States. Entrepreneurial life designates both the subject positions that define the neoliberal US economy and the patterns of suburbanization and automobility that reproduce these subjectivities. In the Caribbean case, this understanding of energy politics draws attention to the complicated webs of political allegiances, social configurations, and collective aspirations that control over various energy forms have rendered possible, predictable, and resistible. A project like PetroCaribe illustrates the need to think of energy as more than a particular commodity and rather as a phenomenon that structures social relations and establishes the horizons of political possibility. While petropolitics defines the *power over* energy across an already-given geographical terrain, the particular form of order associated with petropolitical development is shored up by energy as the *power to* condition political possibility through subject and spatial relations. Energopolitics thus expresses how the (re)configuration of energy flows for social purposes is itself central to the production and contestation of specific modes of governance and subjectivity (Szeman, 2014).

Petropolitics relies on an understanding of territory as fixed, where sovereign states strategize over energy resources in a determined geostrategic arena. The concept of

territoriality here allows us to connect an understanding of energy in terms of petropolitics to one of energopower. Territoriality transcends the deep-seated idea that social actors, such as states, operate within absolute spatial units. It suggests that territory is produced, contested, and actively maintained through infrastructure, institutions, jurisdiction, and everyday practice (cf. Bridge et al., 2013). Painter (2010: 1090) argues that territory is a product of ‘networked socio-technical practices’, and the ability to distribute energy geographically through infrastructural territorializations thus serves strategic purposes (Bridge and Bradshaw, 2017). Energopolitics works through infrastructural territorializations, defining the subjects they serve and embedding social and environmental values expressed in the narratives that justify or contest them (Brogden and Greenberg, 2005). Bouzarovski et al. (2015) notably demonstrate how an intercontinental transit system for liquefied natural gas (LNG) undermined the nation-state as a territorial space for (democratic) decision-making, as this infrastructural assemblage was in part controlled by transnational capital (cf. Agnew, 2005). Hence, this process reconfigured the energopolitical conditions for energy distribution and use by reworking sub- and supranational relations between states, corporate actors, citizens, noncitizens, manufactured infrastructures, and the natural world.

PetroCaribe has been an attempt at reconfiguring the Caribbean basin as a territorial-infrastructural energy region. While the Caribbean islands are territorially bounded in an absolute sense, their dependence on material flows that extend beyond them in space and time make evident how the ability to access and control energy flows is contingent on wider territorializations (Clark and Tsai, 2012). Through expanded and networked infrastructure, the purpose of this energy region has been to create an alternative development space, excluding the United States from Caribbean development affairs. Next, we explore how different modalities of petropolitics and energopower have operated across and beyond the Caribbean with PetroCaribe both to create a multi-polar world order and to enable socio-economic development on ‘historically just’ terms.

## PETROCARIBE BETWEEN PETROPOLITICS AND ENERGOPOWER

When PetroCaribe was signed in Puerto La Cruz, Venezuela in 2005, it set out four objectives. The first had a petropolitical intent: to increase the energy security of the region. This entailed that member-states would share technological know-how to improve their individual hydrocarbon-processing capacities, but also that they would develop renewable energy solutions and improve energy efficiency (cf. PetroCaribe 2007). Investments in energy

infrastructure would strengthen their position in negotiations with oil-exporting states. The other objectives operated in an energopolitical register, seeking to reconfigure the conditions of possibility for a regionally-defined development project. They were coded to generate a collective identity defined by cooperation and solidarity. First, PetroCaribe would counteract a structural inequality in the world market. Echoing the Prebisch-Singer thesis (Peet and Hartwick, 2009), the treaty asserted that the different income elasticities of hydrocarbons and agricultural products rendered Caribbean countries particularly vulnerable to market fluctuations. Mass-consumption in the high-income countries, it stated, increases the cost of oil, which strains the agrarian and tourism-based national economies of the Caribbean (PetroCaribe, 2005). With PetroCaribe, Hugo Chávez later explained, '[w]e deal with a proposal aiming to resolve the asymmetries' (Chávez Frías, 2007). Hence, a further objective was to promote socio-economic development on structurally equal terms, making the Caribbean 'more just, educated, participatory and caring ... eliminating social inequalities', while finally fostering regional integration based on a common subaltern identity in an increasingly multi-polar world (PetroCaribe, 2005).

Here, PetroCaribe followed a logic of decolonization, recognizing that the unequal power relations developed under European colonialism did not end with political independence. As a political project in the contemporary Latin American context, decolonization seeks to challenge a dynamic that relegates Latin America to an inferior space of extraction in material and epistemological terms (Grosfoguel, 2007). In addition to the practical matter of providing energy resources to the Caribbean, PetroCaribe would displace a longer-standing coloniality of power underpinning the petropolitical perspective (Quijano, 2000). The notion of 'coloniality' defines a global, persistent and racialized division of labour, privilege, and risk, where resources in the global South continue to be exploited for the benefit of the global North (Burman, 2017). As an ideology, coloniality works through subjects who internalize their situatedness in an unequal global order in terms of 'natural' states of development and underdevelopment (cf. Kingsbury, 2016a). When PetroCaribe would undermine the effect of the different income elasticities of oil and agricultural products, it would also subvert the injustices of coloniality by constructing a post-neoliberal, anti-imperial regional identity *through* energy based on cooperation and mutual aid rather than lack and vulnerability.

The agreement defined two payment procedures for oil shipments, working to undermine the structural inequality existing between importing and exporting states (PetroCaribe, 2014: 21). The first was a pricing mechanism where, depending on the current



market price, a fraction of the cost would be paid over an extended term. This fraction ranged from 5 percent with prices below 20 US dollars per barrel to 50 percent with prices exceeding 100 dollars. The deferred payments would be placed in the ALBA Caribe Fund to be used for regional development projects (Harrison and Popke, 2018a: 221–222). The second option was a ‘commercial offset mechanism’, which allowed members to countertrade oil for goods to completely counteract any structural economic inequality. Cuba offered medical services while Nicaragua, the Dominican Republic, Guyana, and Jamaica reportedly had offset 2.73 billion US dollars by early 2014, sending 2.2 million tons of rice, coffee, beans, vegetable oils, sugar, meat, milk, pasta, animal fodder, and clinker to Venezuela in lieu of money, as well as 111,931 cows, calves, and bulls (PetroCaribe, 2014: 21). Key here was a view of oil, medical services, and agricultural products as complementary use-values: *dependence* on Venezuela for oil signified interdependence and ‘mutual control’ while *dependency* under market-regulated exchange constituted a relation of Caribbean subjugation (Muhr, 2017: 850). To conceptualize this historical development, the notion of ‘energy’ spills over a circumscribed petropolitical definition of oil as a commodity or strategic resource. It is instead a socially-generative relation that shapes political, economic, and social possibilities. This is further evident as we trace the historical circumstances leading up to PetroCaribe in Venezuela, Cuba, and the greater region.

### Venezuela: Petropolitics as Development

Venezuela has the world’s largest proven oil reserves, including both conventional and non-conventional sources. These reserves have been and continue to be central in shaping Venezuelan political economy (Karl, 1997; DiJohn, 2009), foreign and domestic policy (Brands, 2011: 296; Miller, 2016: 171), and cultural identity (Coronil, 1997; Tinker Salas, 2009; Kingsbury, 2016a). From the early twentieth century, the primary concern of successive military and civilian governments became to maintain markets abroad and the outward flow of oil in order to maximize revenues for often grandiose development projects. The military ruler Juan Vicente Gómez (1908–1935) carefully cultivated relationships with the US-backed majors that dominated early twentieth-century petroleum trade and used his political clout and financial resources to subdue challenges from local *caudillos* to consolidate the modern Venezuelan state. Under the dictatorship of Marcos Pérez Jiménez (1948–1958), the country saw an unparalleled ‘spectacular’ transformation of oil rents into physical infrastructure (cf. Blackmore, 2017). This oil-driven pursuit of development continued after the election of

Romúlo Betancourt in 1959 and the formation of the exclusionary ‘Puntofijo Pact’ of two-party rule (Buxton, 1999; Cardozo Uzcátegui, 2014).

Oil offered Betancourt and his successors greater autonomy than Venezuela’s regional neighbours vis-à-vis the United States. Despite his trenchant anti-communism and close ties to the United States, for example, Betancourt stressed his opposition to *both* the Castro regime in Cuba and the right-wing juntas that fell more squarely under Washington’s umbrella in the region. Betancourt’s protégé Carlos Andrés Pérez (1974–1979) later changed the nature of petropolitics in Venezuela, revising the ‘Betancourt Doctrine’, by vocally criticizing the Pinochet regime while pressing for a normalization of Cuba’s status in the OAS (Cardozo Uzcátegui, 2014: 44). Following skyrocketing oil prices in the wake of OPEC’s oil embargo, Andrés Pérez nationalized the Venezuelan oil industry in 1976, forming the national oil company *Petróleos de Venezuela, S.A. (PDVSA)*. Nationalization was in many ways incomplete, however, as PDVSA became ‘a state within a state’. It was formally subordinated to the national government and provided substantial resources for the development programmes and corruption that defined the administrations of Andrés Pérez and his successors. Yet the company in many ways followed its own orders. As Mommer (2003: 131) notes, ‘executives shared the outlook of international oil companies, for whom they had worked for many years’ and sought to maintain their fiscal autonomy from the central government through an internationalization of assets. In absolute terms, the revenue flows from Venezuela to the United States increased (Mommer, 2003: 134), and as long as oil continued to flow, the United States tolerated the Betancourt Doctrine, revised or otherwise (Clem and Maingot, 2011).

Given the country’s oil wealth, Venezuelan leaders have long seen themselves as leaders of Latin America and the Caribbean. During the Vicente Gómez years, planners envisioned a newly redesigned Caracas as the capital to a ‘new civilization in the tropics’ (Almandoz, 1999: 89). While the most ambitious of these goals never materialized, Venezuela remained an influential actor in the region. The most prominent example of Venezuelan petrodplomacy came with the signing of the San José Accords in 1980 when Venezuela and Mexico agreed to provide eleven Central American and Caribbean states with oil products on preferential terms, including soft financing and extended low-rate loans (Fleischer, 2007). With the economic downturn that followed Mexico’s loan default and Venezuela’s ‘Black Friday’ in 1983, however, both producer countries scaled back contributions to what they considered a development aid programme (López Maya, 2016).

When oil prices collapsed in the 1980s, the state's ability to direct investments and distribute rents was curtailed, weakening the material basis for the 'class compromise' of the post-dictatorship Puntofijo years (Neuhouser, 1992). Neoliberal shock therapy was implemented in late February 1989, further diminishing Venezuela's foreign and domestic petropolitical pursuits. The most immediate response to austerity was the *Caracazo*, a spontaneous mass uprising that left as many as 3,000 dead in the course of a long weekend (Araujo et al., 1989; Coronil and Skurski, 1999). In the longer term, the Puntofijo Pact and its organization of social, political, and economic power collapsed, as traditional elites were discredited in the eyes of the population (Ciccariello-Maher, 2013; López Maya, 2016). Telecommunications, public transit, and even the oil industry were partially or wholly privatized, rounding out the collapse of the socio-political and economic projects that had been associated with Venezuelan petropolitics and the subjectivities it reproduced.

This laid the groundwork for the election of Hugo Chávez in 1998 on an explicitly anti-neoliberal, anti-elite, and nationalist platform. Chávez had previously tried to seize power in a coup in 1992 after which Fidel Castro and he developed a close personal friendship (Azicri, 2009). The Chávez administration's first orders of business were immediately associated with Venezuelan petropolitics, including the resurrection of OPEC and a reinvigoration of oil prices. Riding on a subsequent surge in revenue, the government unilaterally amended the San José Accords. The new Caracas Energy Accords presented even lower-interest, longer-term loans and also invited Cuba into the agreement (Bryan, 2007). In an anti-market manoeuvre, Chávez tried to make large, high-income consumers pay more for their oil while simultaneously guaranteeing oil supplies to poorer nations. At this juncture, Chávez was formulating a vision of Twenty-First Century 'Bolivarian' Socialism in Venezuela. Four things characterized Bolivarian socialism in particular: a re-regulation of key markets; a prioritization of social spending; an aggressive de-commodification of basic needs; and the construction of a mixed economy (cf. Yates and Bakker, 2014). To break Venezuela's historically-induced role as an exporter of primary products alone, the government launched a 'petrochemical revolution' seeking to develop the country's downstream sector to export manufactured goods derived from hydrocarbons (Delgado, 2017). However, this new 'socialist' economy retained private property, wages, and crucially, PDVSA's integration into globalized circuits of capital accumulation.

Chávez's post-neoliberal development agenda put him on a collision course not only with the United States but with local elites. Tensions culminated early in an overturned coup d'état and oil-industry lockout in 2002–2003. When the United States provided logistical and

moral support both to the coup and constitutional attempts to depose his government, Chávez framed his programme in increasingly strident anti-imperialist terms. To the opposition's great frustration, the foiled coup and post-lockout *chavista* takeover of PDVSA occurred precisely as international oil markets once again benefitted producers. Oil, long an ambivalent central signifier of national identity, became increasingly associated with an energopolitical project characterized by common advancement, the principles of direct democracy, and national sovereignty (Kingsbury, 2018). The subject-producing effects of oil thus took on a new hue as socialized development at home and an increasingly defiant anti-imperial foreign policy fed into each other, breaking with the energopolitical logic underlying the Puntofijo Pact. An extension of the Caracas Energy Accords, PetroCaribe concretized Chávez's ideological commitments abroad, promising a new radical chapter in a long history of Venezuelan petro- and energopolitics.

### Cuba: Energy for the Revolution

For centuries, Cuba was also a net exporter of energy as the world's leading sugar colony. The sugar industry long relied on fuelwood from the island's dense forests, and after a royal concession in 1815, sugar planters were allowed to clear forests at will. As Funes Monzote (2008) chronicles, the Caribbean's largest island was quickly deforested. Towards the end of the nineteenth century, US capital invested in gas and electric lighting systems in Cuba. These systems gave both mill owners and affluent, white segments of the population access to new modes of energy use (Pérez Jr., 1999). The uneven distribution of gas and electricity contributed to the formation of the racialized subject positions characterizing the colonial economy (see Harrison, 2016 for a similar dynamic in North Carolina). Electricity was generated with fuel oil supplied to Cuba by the international oil majors. Morley (1987: 102–103) suggests that Esso, Texaco, and Shell had a modest 132 million US dollars invested in Cuba in 1960 out of an estimated 122 billion in total assets; yet, their Cuban operations were more important than the numbers suggested as Cuba was 'an assured market' for their large investments in high-priced Venezuelan crude. At the time of the Revolution in 1959, Fidel Castro criticized this aspect of Cuba's energy dependence in which multinationals offset the cost of investments in Venezuela by inflating prices in Cuba (e.g. Castro Ruz, 1960: 20). Through energy use, the Cuban 'people' had been unfairly incorporated into a territorial-infrastructural space serving the interests of US and multinational capital. Instead, national sovereignty following the Revolution would allow Cuba to diversify its range of trading

partners, as well as to invest in national oil production for increased energy independence (Cederlöf, in press).

In the course of the 1960s, Cuba gained increasing access to Soviet oil resources. With a first bilateral agreement in February 1960, the Soviet Union supplied Cuba with oil in exchange for sugar. A large share of the oil went directly into the sugar industry itself, increasingly reliant on industrial machinery and petroleum-based agrochemicals, where sugar output guaranteed oil supplies. Another share fuelled the revolutionary government's national electrification campaign (Cederlöf, 2017). The exchange was further institutionalized in the early 1970s when Cuba joined the Soviet-dominated Council for Mutual Economic Assistance (CMEA, or Comecon). In the CMEA more widely, the Soviet Union supplied the European socialist states with oil and gas based on the 'Bucharest formula', using the average world-market price for the preceding five years as a benchmark for a coming five-year trade agreement (Reisinger, 1992). While this formula was renegotiated following OPEC's 1973 oil embargo, Cuba remained an exception as it received oil on a bartering basis, with oil and sugar prices pegged to each other on highly favourable terms for Cuba. Both Cuba and the Soviet Union argued that this agreement counteracted the structural inequalities that otherwise existed between an industrialized and an agrarian country in the world market (Cederlöf, in press). Like PetroCaribe, the CMEA constituted an energy region characterized by 'socialist fraternity'; one maintained by shipping lanes joining Cuba to Baltic and Black Sea ports. Cuba's oil trade with the Soviet Union increased steadily from 900,000 tons in 1960 to a peak in 1987 when it received 13.7 million tons (Mt) (ONE, 2009: table 2).

In the early 1990s, Cuba's position within the transatlantic energy region changed as the Soviet Union disintegrated. The new Russian government demanded that Cuba import oil and export sugar based on world-market prices. Cuba's imports of crude oil quickly diminished by 86 percent (ONE, 2009: table 2). An energy-inefficient sugar industry, lower sugar prices, and higher oil prices all heightened Cuba's petropolitical vulnerability as it struggled to purchase oil on the international markets. The disintegration of the CMEA once again underlined Cuba's energy dependency. Despite this structural condition, the Cuban government's pursuit of socialist development remained deeply entrenched. To access oil, they launched a renewed initiative for oil production in the Cuban Gulf of Mexico. While the national oil company, Cupet, increased production from a high 938 Mt in 1986 to a record 3,680 Mt in 2003, this peak quantity was a far cry from former Soviet imports (ONE, 2009: table 3). Hence, in the early 2000s, the prospect of a new Caribbean energy region held the potential to again integrate Cuba into a territorial-infrastructure space granting access to oil.

PetroCaribe promised Cuba both more egalitarian trade relations and investments in infrastructure, especially in the petroleum sector. While the anti-imperial framing of the alliance resonated with the experience of neoliberal structural adjustment programmes in the Caribbean widely, it aligned with the Cuban government's long-held commitment to non-capitalist development. In a first step towards integration, Hugo Chávez and Fidel Castro signed a *Convenio Integral de Cooperación* (Comprehensive Cooperation Agreement) in October 2000. Among other things, the agreement granted Cuba access to Venezuelan oil on the generous terms stipulated in the Caracas Energy Accords (Venezuela-Cuba, 2000). Legitimizing these terms, PetroCaribe documents later came to reiterate Fidel Castro's decades-old analysis of the global political economy. One financial report, for example, suggested that 'the region used to be a space that was traditionally supplied by transnational corporations and intermediaries who took advantage of the structural weakness of these countries by applying excessively high prices' (PetroCaribe, 2014: 9). PetroCaribe thus tied into an enduring Cuban critique of neo-colonialism and again presented Cuba with an alternative to structurally-unjust market exchange.

### The Greater Caribbean

While unique in view of its Cold War history, Cuba's reliance on fossil energy from overseas is a feature shared by other island-states in the Caribbean basin. With the notable exception of Trinidad and Tobago, the Greater Caribbean is a net importer of fossil-based energy resources as a whole.<sup>2</sup> In a petropolitical register, the region is best defined in terms of vulnerability and insecurity: large producers—the United States, Mexico, and Venezuela—often at odds with each other, surround more than twenty small states that possess no oil or natural gas at all (Arriagada, 2006). 90 percent of the region's petroleum supplies are imported, with some states spending almost half their export revenues on fossil fuels (cf. Harrison and Popke, 2018a). The greater part of the imported oil products is used for electricity generation, but despite this, the total electrical capacity of the Caribbean island-states fell short of even 6 GW in 2009 (Shirley and Kammen, 2013: 244). Heavy import dependence has recently sparked an interest in renewable energy development (Shirley and Kammen, 2013; Harrison and Popke, 2018b), but access to oil, as the energy source that has both metabolized and defined global political

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<sup>2</sup> Like the rest of the region, Trinidad and Tobago is dependent on fossil fuels for electricity generation and transportation but is a net exporter of LNG and oil. Since the 1990s, the Trinidadian economy has been dominated by natural gas extraction under the aegis of British Petroleum and British Gas (EIA, 2018).

economy for the past century, has long defined the uneven development and the horizons of developmentalism in the region. Petropolitically, the Caribbean is locked into dependence on resource-rich states, while energopolitically, the guarantee of fossil-fuelled modernization continues to define the horizons of political ambition.

Caribbean energy infrastructures, as Byer et al. (2009: 7) note, are characterized by 'high private participation' in generation, transmission, and distribution 'with very little competition'. In Grenada, for instance, a utility which since the mid-1990s is owned by a US-based company is the only electricity provider. In Jamaica, the Jamaica Public Service Company is the sole private distributor, with several companies generating electricity since this sector was deregulated in 2004 (Shirley and Kammen, 2013). In the 1950s, electricity in the Caribbean was unevenly available and largely self-generated at the point of consumption. Following a larger trend in Latin America, the 1950s and 1960s saw a wave of nationalizations across the region, integrating utilities and bringing them under government ownership. Oil and energy were in this regard entangled with collective national subjectivities, keen to shed the overweening influence of foreign powers and former colonial rulers. In the 1980s and 1990s, by contrast, World Bank reforms brought with them a wave of privatizations and an 'unbundling' of public utilities; projects that exposed the decolonial subjects of mid-century to precarity under the rationale of structural adjustment. Today, even the World Bank admits that these reforms had severely negative implications, especially for the rural poor (Byer et al., 2009: 6–9, 41–42; cf. Walton, 2004). The eagerness with which nearly every government in the region signed on to PetroCaribe in 2005 comes as no surprise then, given the high levels of debt and fossil-fuel dependence, though many were likely more tempted by affordable oil than Socialism for the Twenty-First Century.

Predictably, from a petropolitical viewpoint, PetroCaribe was met with a high degree of scepticism on both conventional economic and ideological grounds in Washington but also in the Trinidadian capital, Port of Spain. Patrick Manning, then prime minister of Trinidad and Tobago, warned that the agreement would undermine private enterprise and leave the region dependent on a single state-owned and likely unstable source for its energy needs. He also added that his country would be forced to seek alternative and extra-regional markets for its natural gas and oil, and he promised no guarantee of trade with former customers should the supply from Venezuela run dry (Bryan, 2007: 382–383). The World Bank and the US-based Inter-American Dialogue voiced similar sentiments, both sounding alarm bells about Caracas' growing influence in the region and the perils of dependency on the Bolivarian Republic (symptomatically, their concerns did not extend to the historically outsized role of Washington

and US-based firms in the region) (Arriagada, 2006; Byer et al., 2009: 77). Facing ongoing political turmoil in Venezuela, Mexico has, finally, explored the possibility of taking over Venezuela's PetroCaribe commitments in a move aimed to anticipate and accelerate the downfall of Nicolás Maduro (Stargardter, 2017).

In sum, the formation of PetroCaribe as an energy region illustrates longstanding petropolitical and energopolitical assumptions and positions. While the comments of Trinidad and Tobago's prime minister by no means came from a disinterested observer, they were symptomatic of an energopolitical position rendering the form of order associated with petropolitics either benign or unchallengeable. Within this order, the prospect of a non- or at least post-neoliberal energy market was incomprehensible for prevailing understandings of trade, geopolitical relations, and best-practices in development. For PetroCaribe to be successful, it would need to tackle the formidable challenge of redefining the Caribbean energopolitically in a shift toward a shared identity and common political project. This task rose and fell with the alliance's material expressions and the transformation of the Caribbean as a territorial-infrastructure space.

## PETROCARIBE AS A TERRITORIAL-INFRASTRUCTURAL SPACE

### Petroleum Infrastructure

To create and coordinate PetroCaribe as a territorial-infrastructure space, PDVSA formed a subsidiary enterprise called PDV Caribe when the treaty was signed. The agreement conferred the responsibility to organize a 'logistics network' of tankers, port terminals, storage facilities, and where possible, also increased regional refining capacity to the subsidiary (PetroCaribe, 2005: III). Another purpose of PDV Caribe was to provide a direct organizational link between Venezuela and the other member states to distribute oil across the region without intermediation. This would reduce costs for the recipient states, but institutionally, it was a means to territorialize PetroCaribe as one integrated space. The agreement further issued that PDV Caribe would provide vessels for oil delivery. This, too, would generate financial savings for the recipient states when compared to trade beyond the energy region. Transports would be provided 'at cost'; in other words, without PDV Caribe utilizing its power as a controller of oil wealth to turn a profit (PetroCaribe, 2005: III). For this purpose, the shipping company TransALBA was set up, owned jointly by PDV Caribe's Cuban branch and Cuba's Internacionales Marítimas. By 2009, TransALBA had two oil tankers in its fleet, the *Petión*



and the *Sandino*. Reporting on the *Sandino*'s maiden voyage, the *Oil & Gas Journal* noted that the Chinese-built tanker, carrying 390,000 barrels of oil (bbl), was funded under a 15-year, 122-million-dollar credit, extended by the Venezuelan development bank Bandes. Hugo Chávez suggested that the two tankers together would generate savings of 30–50 million dollars per year when compared to rented vessels, 'in addition to ensuring the region's energy security and sovereignty' (Watkins, 2009). Beyond the promised practical benefits of insourcing refining and distribution, PetroCaribe's infrastructural investments thus aimed to redraw the existing petropolitical map in favour of the Caribbean's historically dependent states.

At PetroCaribe's Third Summit in Caracas in 2007, the region's heads of state agreed to form an extended set of binational joint-ventures (*empresas mixtas*). The aim was to develop PetroCaribe infrastructure within the jurisdiction of each country. In 2014, the *PetroCaribe Management Report* noted that nine companies had been set up to date. The enterprises operated in three areas: storage and distribution, electricity generation, and refining. At the time, there was a total storage capacity of 260,000 bbl across PetroCaribe. 200,000 bbl of these were in the Benjamín Zeledón Plant in Nicaragua; a plant operated by ALBANISA, owned to 51 percent by PDV Caribe and to 49 percent by the Empresa Nicaragüense de Petróleo (Petrico). The second largest facility, the Waitukubuli Storage Plant in Dominica, had a capacity of 39,000 bbl and was run by PDV Caribe (Dominica). This joint-venture was owned to 55 percent by PDV Caribe and to 45 percent by the Dominica National Petroleum Company (PetroCaribe, 2014: table 2). After El Salvador's accession to PetroCaribe in 2014, moreover, ALBA Petróleos El Salvador (60 percent PDV Caribe and 40 percent ENEPASA) invested 111.4 million US dollars in a storage plant in Acajutla, adding 355,000 bbl of storage to the PetroCaribe infrastructure (SELA, 2015: 24). These storage and distribution plants served as infrastructural nodes in the networked energy region, facilitating the transfer of energy from Venezuela across the Caribbean.

PetroCaribe joint-ventures also constructed and expanded the capacity of electrical power plants in the region. In 2014, ALBANISA was running the 291.2-MW Che Guevara IX Plant in Puerto Sandino, Nicaragua, and was constructing two wind farms in Rivas, each good for 40 MW. In Haiti, PDV Caribe and the Cuban state-utility UNE assembled power plants in Carrefour (34 MW), Gonaives (13.1 MW), and Cap-Haïtien (13.6 MW) with the aim of contributing electricity to emergency services after the devastating earthquake of 2010 (PetroCaribe, 2014: table 6). On Grenada and Saint Kitts and Nevis, in turn, PDV Caribe built fuel-storage facilities next to two electrical power plants, aiming to 'increas[e] the autonomy'

not only of the plants but of the two island-nations (PetroCaribe, 2014: table 2). Parallel to this storage and electricity infrastructure, PetroCaribe enterprises operated three refineries. PDV Caribe had a 49 percent stake in Jamaica's Petrojam Ltd. and in the Dominican Republic's Refidomsa PDV. Petrojam operated a refinery in Kingston with a capacity of 36,000 barrels per day (bpd) while Refidomsa ran a 34,000-bpd refinery in Bajos de Haina.<sup>3</sup> The aim of investing in these refineries was to develop national hydrocarbon-processing capacities across the region, shoring up both the independence and interdependence of member states.

The largest refinery by far, however, was located in Cienfuegos, Cuba. While Cuba is a signatory of PetroCaribe, trade has been regulated in the *Convenio Integral de Cooperación* from 2000. PDV Caribe, in turn, operates through a subsidiary in Cuba, called PDV Cuba, which is headquartered in Havana. In 2014, PDV Cuba co-owned five enterprises. Alongside TransALBA, the largest enterprise was Cuvenpetrol, which ran the Cienfuegos refinery. In Cuba, this refinery is known as the *Refinería Camilo Cienfuegos*—not after the city where it is located, but after the Cuban revolutionary hero. The naming of PetroCaribe facilities after rebel leaders like Camilo Cienfuegos, Che Guevara, and Benjamín Zeledón work as symbolic gestures that insert them into an anti-imperialist imaginary, intentionally formative of a collective regional identity. Construction of the refinery started in the 1980s with the support of the Soviet Union, and it was one of the largest industrial projects in the country at the time, next to the construction of two nuclear reactors (Cederlöf, in press). While the nuclear project was put on hold after the collapse of the Soviet Union, the refinery opened in 1991. In 1995, it had to close again due to a lack of crude oil.

With Venezuelan capital, the refinery was renovated in the mid-2000s to process Venezuelan crude. It was re-inaugurated by Raúl Castro and Hugo Chávez in December 2007 during PetroCaribe's Fourth Summit in Cienfuegos, constituting the first major bilateral project to integrate the Cuban and Venezuelan national economies. In a speech on the day of the inauguration, Hugo Chávez argued that the refinery played a key role in the Caribbean's collective history, as the refinery now enabled regional development on just terms: 'Oil, today, now, is being converted from an instrument of domination into an instrument for the liberation of our peoples through the platform PetroCaribe. The black gold is becoming ever more transparent. And if oil is being converted into an instrument of liberation, the construction of regional energy entities is a historical necessity' (Chávez Frías, 2007). From a Cuban point of

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<sup>3</sup> The capacity of these refineries can be compared to PDVSA's giant Paraguaná Refining Centre in Falcón State with a nameplate capacity of 955,000 bpd.

view, in comparison, the refinery testified to the ability of ‘the Revolution’, as a metaphor for a national subjectivity (cf. Gold, 2015), to continuously overcome the obstacles to national development posed by the imperial United States (*Granma*, 2007).

Today, the Camilo Cienfuegos refinery has a capacity of 65,000 bpd, and the petrochemicals it produces serve both the Cuban state-economy and Caribbean markets. Celebrating the refinery’s tenth anniversary in 2017, the Cuban Communist Party’s newspaper *Granma* reported that it had processed 150 million bbl since 2007, which equals 41,096 bpd (Martínez Molina, 2017). In 2017, the Cienfuegos refinery processed only 8 million bbl, according to official figures, equalling 21,918 bpd (Martínez Molina, 2017). According to Venezuelan sources, Cuban oil imports from PDVSA peaked at 111,723 bpd in 2008 (MPetroMin, 2013: cuadro 67) but fell to 56,633 bpd in 2014 (MPetroMin, 2014: cuadro 67). Table 1 summarizes PetroCaribe’s official reports on regional oil transfers in the first quarter of 2014. While no Venezuelan, Cuban, or PetroCaribe figures are publicly available after this year, the US EIA (2016) reports that Cuba received 53,500 bpd in the first half of 2016, further indicating that Venezuela’s ability to supply oil to its allies has been severely compromised in recent years.

Member state	Quota	Completion rate	Total supplies 2005–2014
	Thousands bpd	Percent	Millions bbl
Antigua and Barbuda	4.4	18.8	2.5
Belize	4.0	73.8	1.6
Cuba	98.0	74.2	2.0
Dominica	1.0	31.6	0.8
Dominican Republic	30.0	111.1	81.4
Grenada	1.0	72.5	1.8
Guyana	5.2	95.0	9.6
Haiti	14.0	96.5	27.4
Jamaica	23.5	88.5	74.6
Nicaragua	30.0	78.0	54.9
Saint Kitts and Nevis	1.2	43.6	10.7
Saint Vincent and the Grenadines	1.0	55.5	0.8
Suriname	10.0	26.5	2.0
<b>Total</b>	<b>223.3</b>	<b>66.6</b>	<b>270.1</b>

**Table 1.** Oil transfers within PetroCaribe in Q1 2014, including total supplies 2005–2014<sup>4</sup>

Source: PetroCaribe (2014: table 1)

### Social and Medical Infrastructure

Alongside energy infrastructure, the energy region envisioned by PetroCaribe is unthinkable without a host of parallel, wholly or partially intersecting regional projects that have served the alliance's energopolitical objectives. According to official figures, 432 'social projects' had been carried out by 2014 under PetroCaribe's purview. Valued at 3.9 billion US dollars, these projects focused on infrastructural works, housing, and institutional development, drawing on long-term credits from the ALBA Caribe Fund (PetroCaribe, 2014: 24). While PetroCaribe's preferential terms of trade helped many import-dependent Caribbean states stay afloat during the 2008 financial crisis, this fund also supported regional development investments in its wake. Not far from the refinery in Cienfuegos, for example, Venezuela contributed a new residential area of *petrocasas* named in honour of Simón Bolívar (Cederlöf, in press). *Petrocasas* are houses made of the petroleum-based plastic PVC, which were developed as part of Venezuela's 'petrochemical revolution' (Delgado, 2017). In 2017, PDV Caribe representatives reported expenses of 'over \$1.8 million dollars in assistance toward education, sports and other social programs that focus on uplifting people' in Dominica alone (*Dominica News Online*, 2017). Haiti, in turn, had reportedly withdrawn 110 billion gourdes (c. 1.3 billion US dollars) since the 2010 earthquake with Venezuela also writing off Haiti's 396-million-dollar debt from deferred payments. In 2018, however, Haiti erupted in protests as a senate report revealed that government officials had embezzled large parts of Haiti's billion-dollar loans (Sénat de la République, 2017). Despite instances of such misappropriation of funds by executive branches, following PetroCaribe's energopolitical logic, these sorts of bi- and multilateral social investments were more than practices in corporate social responsibility. Solidarity was not a positive side-effect of the agreement but the central aim and substance of PetroCaribe. The energopolitical territorialization of PetroCaribe can therefore be traced not only in terms of energy installations but also in terms of complementary infrastructure that has been co-generated with—and reciprocally to—oil infrastructure.

The model intervention for PetroCaribe's wider reconfiguration of socio-spatial relations is *Misión Barrio Adentro*, which by association ties PetroCaribe into the extended

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<sup>4</sup> The figure for Cuba's total supplies 2005–2014 is highly questionable. While Cuba's quota was higher prior to 2014, a daily supply of 98,000 bbl would equal 321.9 million bbl in the span of nine years.

history of Cuban aid and ‘internationalism’. *Misión Barrio Adentro* (Mission Inside the Neighbourhood) was perhaps *the* flagship programme of the Chávez government’s multifaceted attempts to distribute oil wealth via social welfare projects. *Barrio Adentro* addressed the historically entrenched and geographically patterned unequal access to healthcare by bringing Cuban doctors into some of Venezuela’s poorest and most underserved areas (Sánchez, 2005; Santana, 2006).<sup>5</sup> It made primary healthcare immediately accessible to segments of the population who previously had to forego treatment or travel long distances, all at great cost. Cuban doctors were first dispatched to Venezuela in 1999 when flash floods and landslides left thousands dead in Vargas State. Facing a shortage of emergency personnel and primary-care physicians, Cuba deployed 450 medical staff as part of its disaster relief programme (Kirk, 2011). When political divisions deepened in Venezuela in the early 2000s, the Chávez government faced increasing difficulty in enlisting upper-class Venezuelan doctors to provide healthcare in the poor *barrios*. The Cuban government, on the other hand, was keen to regularize the bilateral agreements that would provide the island with much needed oil. In addition, *Barrio Adentro* provided another venue for exercising Cuba’s ideological commitment to third-world solidarity (Kirk, 2009; Gleijeses, 2013).

As Mawdsley (2012: 10) argues, Cuba’s long-standing aid to other low- and middle-income countries has been downplayed by Western observers despite its far-reaching impact. In the 1960s, the revolutionary leadership posited Havana as a symbol and instigator of national liberation in the third world. In the spirit of the Bandung Conference, they hosted the Tricontinental Conference in 1966 to inaugurate the Organization of Solidarity with the Peoples of Asia, Africa, and Latin America (OSPAAAL), funding, training, and supporting national liberation movements (Gronbeck-Tedesco, 2008). Cuba’s direct internationalist missions had both military and medical dimensions. Cuban aid started with backing for Algerian independence, which was followed by support to insurgencies in dozens of countries, including Venezuela, Bolivia, and Guinea-Bissau in the 1960s and Angola, Ethiopia, and

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<sup>5</sup> Other *misiones* addressed a wide array of the social consequences of late-twentieth century neoliberalization, including food and housing insecurity, lack of access to education, unemployment, the gendered effects of precarity, cultural and racial marginalization as well as proactive pursuits such as increasing youth participation in sports, veterinary care, and urban agriculture—among many others. The *misiones* are considered by many to be key for the Bolivarian Revolution’s operation and survival. Right-wing and liberal critics dismiss them as elements of a familiar populism made opulent by the oil boom of the early twenty-first century (see for example Hawkins, 2010). More nuanced accounts argue instead that the *misiones* have been points of contact, creation, and insertion; the quotidian and participatory substance of the Bolivarian process in daily life (Ciccariello-Maher, 2013; Kingsbury, 2016b). Aside from the judgement implicit in either analysis, observers in Venezuela have noted the degree to which their performance has been linked to the government’s electoral triumphs and defeats, as early as the 2007 constitutional referendum (Lander, 2008).

Namibia in the 1970s and 1980s. At its peak in 1988, 55,000 Cuban troops were fighting in Angola alongside thousands of medical staff and technical advisers (Gleijeses, 2013: 9).

Fidel Castro and other Cuban leaders legitimized the international missions in the name of anti-imperialism. In Latin America, the Cubans had liberated themselves from neo-colonial subjugation through their epoch-making Revolution and had an internationalist duty to support fellow Latin Americans in their quest for independence. In Africa, the Cubans were free former slaves who helped their ancestral kin fight Portuguese and US imperialists and South Africa's apartheid troops, as well as to build their national healthcare systems (Gleijeses, 2013). This framing has also resonated in popular discourses, Kirk (2011) argues, as many Cuban doctors are socialized into an altruistic belief in their responsibility as revolutionaries to provide healthcare to the less fortunate. Indeed, as Mawdsley (2012: 58) suggests in relation to Vietnamese aid, socialist internationalism 'must be recognized as having had a moral, emotional and even aesthetic disposition', which requires us to understand it on terms beyond calculated economic or political intentions expressed in a socialist, third-world subjectivity.

In the early 2000s, Fidel Castro offered Venezuela Cuban doctors to set up clinics, so-called *modulos*, in areas Venezuelan medical staff refused to work. By 2010, almost 30,000 Cuban doctors lived and worked in the Venezuelan *barrios* (Kirk, 2011). The distinctive, octagonal red-brick *modulos* housed both an examination office and the Cuban doctors that staffed them. In the early days of the *Barrio Adentro* programme especially, the clinics changed the physical composition of the often informally-settled neighbourhoods in which they were built. At the Venezuelan receiving-end of the Caribbean energy region, the *Barrio Adentro* clinics became landmarks of a distributive politics, being both physical and social manifestations of egalitarian public life. From a mainstream economic perspective, Cuba's medical mission to Venezuela can be seen to have generated income directly through the parallel movement of oil and medical services in the *Convenio Integral de Cooperación*. As Kirk (2009) suggests, however, it is difficult to work out the monetary value of Cuba's medical intervention. The often-referenced 'oil-for-doctors' swap has been far from a straightforward exchange, as oil and medical services have constituted two bilateral projects out of hundreds. Cuba has also in part repaid Venezuela by deploying doctors in Haiti as well as training Haitian medical students (Baranyi et al., 2015: 171). In the period 2000–2007, the integration of the Cuban and Venezuelan economies resulted in an increase in bilateral trade from 912 million to 2.7 billion US dollars (Kirk, 2009: 503). An economic interpretation such as this, however, goes against the grain of PetroCaribe's internal logic. Its purpose was to undermine what the

signatories saw as structurally unjust market exchange to facilitate regional development through energy on post-neoliberal terms.

Currently, we are witnessing a fracturing of PetroCaribe infrastructure. Due to the collapse of the Venezuelan economy, recent reports indicate that Cuba has attempted to replace Venezuelan oil supplies with imports from other sources, including Algeria's Sonatrach and Russia's Rosneft (Marsh and Parraga, 2017; Reuters staff, 2018). In August 2017, Cupet also took full ownership of the refinery in Cienfuegos (Martínez Molina, 2017). According to *Reuters* in Havana, it was a 'payment for debts' incurred for 'professional services' and the rental of tankers (Marsh and Parraga, 2017). In aggregate terms, China overtook Venezuela as Cuba's largest trading partner in 2016. The *Jamaica Observer* (2018), in comparison, suggested in March 2018 that the Jamaican government was proposing to repurchase PDV Caribe's share of Petrojam Ltd. Still, despite its decline, PetroCaribe can be seen as a success in that the efforts to increase regional 'energy security' by building refineries and storage plants will last even if the alliance formally comes to an end.

Notwithstanding five years of declining oil prices and heightened social conflict, over twenty *misiones* remain in Venezuela today, including *Barrio Adentro*. These programmes are central to the survival of the Bolivarian Revolution as they provide important instantiations of the government's commitment to the population. When they function properly, they are important symbolic venues for exercising a form of *chavista* subjectivity. While territorializing the Bolivarian Revolution and the Caribbean energy region, however, the *Barrio Adentro modulos* cut in multiple directions. The identification of *Misión Barrio Adentro* with Cuban doctors has resonated with Venezuelan racial economies, as largely white opposition protesters accuse the often Afro-Cuban doctors of 'invading' their country (Kingsbury, 2018: 134). Poorly maintained or understaffed clinics also serve as reminders of the Bolivarian Revolution's inconsistencies, potentially undermining support for Maduro's government among the *chavista* base. Not least, the *modulos* have become targets for violent protesters who regularly attack them in attempts to destabilize the government.

## CONCLUSION

From a petropolitical perspective, PetroCaribe has improved the energy security of the Caribbean island-states by increasing their petroleum and energy processing capacities and, at least for a time, affording them access to oil on preferential, 'fair' terms. Rather than maintaining the status quo, however, energy security under PetroCaribe has aimed to upset the

interests most benefitting from the legacy of neoliberal reforms and the dominant petropolitical paradigm in the region (cf. Bridge, 2015). Coded as a collective undertaking based on complementarity, PetroCaribe sought to reconfigure power relations for a more inclusive, democratic development model based on fossil-fuel consumption (Delgado, 2017; Muhr, 2017). To this end, the alliance produced a networked territorial-infrastructure space defined by a post-neoliberal development model, establishing flows of energy and people on a logic other than market-based competition. It has, in other words, operated in an anti-imperial petropolitical register while pursuing an energopolitical agenda productive of new subjects, relations, and capacities. While Venezuela has benefitted from the alliance by extending its geostrategic influence in the region, Venezuelan oil has also materially enabled an extension of medical care and basic services to some of the region's poorest areas. PetroCaribe, then, invites us to think of energy through a petropolitical lens, but also as a socially-generative relation that shapes subjectivities and political possibility. It allows us to think of the Caribbean energy region in terms of energopower (Boyer, 2014).

Two concluding observations summarize how PetroCaribe has territorialized the Caribbean as an energy region. First, PetroCaribe established networked infrastructure with social and human development mandates. The rationale behind this infrastructural integration, and hence, territorial production of the energy region (cf. Painter, 2010; Bouzarovski et al., 2015), was not only to redistribute oil but to improve the hydrocarbon-processing capacities of the member states (and in the case of Venezuela, the healthcare capacity). Storage and distribution facilities, electricity plants, and refineries would give each country more control over its energy supply and, by consequence, reconfigure power relations to enable post-neoliberal socio-economic development. In this process, the treaty posited Venezuela as an enabler of regional development, as opposed to the United States and corporate actors, 'assisting sister nations in the region with their energy sovereignty' (PetroCaribe, 2014: 9). Reciprocally, Cuban internationalism enabled social transformation in Venezuela and across the energy region.

Second, PetroCaribe did not construct a closed space—an absolute, geographically-bounded energy region (cf. Muhr, 2017). This was neither the project's aim nor would such a pursuit be feasible under prevailing conditions of globalized neoliberal capitalism. Member-states received oil from Venezuela, but they also accessed oil and other energy forms within complementary infrastructural spaces, resonating with or contradicting the energopolitics of PetroCaribe. Cuba's Cupet, for instance, has produced oil of its own and operates three refineries apart from the Camilo Cienfuegos. Cuba has also imported oil from companies



including Sonatrach, Rosneft, and Repsol. PDVSA's top customer over the past decade, on the other hand, has been the US market, even as Venezuelan foreign policy has emphasized the construction of a multi-polar world system. While PetroCaribe has been an attempt to construct an 'anti-imperial' development space in the Caribbean, it attests to the hybrid nature of Chávez's Socialism for the Twenty-First Century. This was a socialism that did not come *after* capitalism, as the Cuban Revolution proclaimed, but developed spatially and temporally within it while prioritizing values and subject positions outside the market consensus (Yates and Bakker, 2014). As an energopolitical territorialization, PetroCaribe was similarly not a bounded, absolute, or isolated space, but an attempt to enact social change on a regional scale by reconfiguring spatial relations against the backdrop of a resilient imperial political economy.

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